KNIGHT SKY

A Managed Network Services Company

Corporate Brief

SkyMAX Data Plans

Service Plans	Access Speed (MIR)		Priority	Allowance	Price	Parameters	
Data Plan	Download	Upload	CIR	Usage	Per GByte	Satellite	Terminal
SkyMAX-35	4.0 Mbps	1.0 Mbps	Best Effort 64 128 256	10 GB 20 GB 40 GB 80 GB	$35-$50	48 dBW 3 dB G/T	35 cm - 65 cm 16 Watt
SkyMAX-65	8.0 Mbps	2.0 Mbps	Best Effort 128 256 512	20 GB 40 GB 80 GB 120 GB	$30-$40	45 dBW 0 dB G/T	65 cm - 95 cm 16 Watt
SkyMAX-120	16.0 Mbps	4.0 Mbps	Best Effort 256 512 1024	40 GB 80 GB 120 GB 160 GB	$20-$30	42 dBW -3 dB G/T	1.0 - 1.8 Meter 16 Watt

Enterprise Plan	Download	Upload	Priority	Usage	Days	Satellite	Antenna
Custom	1-100 Mbps	64 Kbps - 50 Mbps	Dedicated	Unlimited	Always On	Various	Various

MIR - Maximum Information Rate, CIR - Committed Information Rate
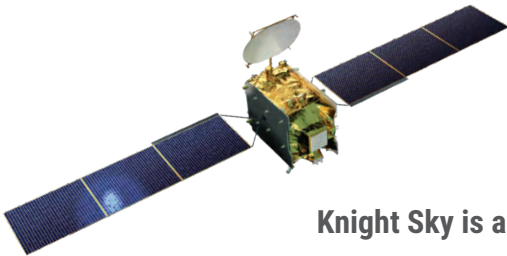
Contract Options

GSA Federal Supply Schedule 70

Knight Sky Contract #GS-35F-0016V
Contracting Officer: Jill Erickson
Email: jill.erickson@gsa.gov Phone: (817) 978-3039

GSA Contract Holder

Custom SATCOM Solutions - Small Business (CS3)

Knight Sky Contract #GS00Q17NRD4010
Contracting Officer: Tracey Embry
Email: tracey.embry@gsa.gov Phone: (703) 306-7041

*Find the complete ordering guide for Custom SATCOM Solution at:
https://www.gsa.gov/portal/content/122231*

ABOUT US

Knight Sky is a leading provider of **end-to-end satellite network services** dedicated to supporting the United States government and its citizens during times of crisis and critical need with secure, reliable, and scalable emergency satellite and wireless communications capabilities.

KNIGHT SKY

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KNIGHT SKY

SOLUTIONS & STRATEGIES FOR SATELLITE COMMS

SkyMAX 2.0
MANAGED SATELLITE NETWORK SERVICES

SkyMAX 2.0 is global satellite service providing internet or private network connectivity for single users or entire enterprises over land, sea, or air. The service boasts high-speed access to the Public Internet for intensive voice, video, and data applications. Designed specifically to meet stringent security regulations, service prioritization, and high reliability for the Department of Defense and federal agencies. These same features are also available to critical commercial communication such as shipping, transportation, and service restoration. SkyMAX 2.0 has now been updated to support the most advanced small aperture phased array and flat panel antennas down to 35 centimeters in diameter.

Applications

SkyMAX Managed Network Services can be employed for a wide range of applications.

Business Services	Emergency Management and Security	News and Entertainment
> Private Enterprise Network > Remote Business Operations	> Incident Site Communications > Continuity of Operations > Video Surveillance	> News or Event Gathering > Video and Data Broadcasting > Morale, Welfare, and Recreation
Medical and Research Institutional	**Oil, Gas, and Exploration**	**Mobile Communications**
> Telemedicine > Distance Education > Video Conferencing	> Data Collection and Monitoring > Video Surveillance > Remote Business Operations	> Maritime Ship-to-Shore Communication > Aeronautical and Aviation

Key Features & Benefits

> **Global Coverage:** 50 United States and territories with extended coverage to South America, Pacific, Europe, Middle East, and Africa.

> **Small Aperture Terminals:** Operation into satellite terminals as small as 35 cm in select areas of operation.

> **High Speed Access:** Download Speeds up to 16 Mbps and Upload speeds up to 4 Mbps.

> **High Reliability:** Operates as Ku-band frequencies which is 10 x more resilient to rain fade than the commercial Ka-band services.

> **Resilient to Weather:** Adaptive Coding and Modulation and Uplink Power Control adjusting to local weather conditions.

> **Fully Redundant:** Services supported by two or more satellites and geographically disparate teleports.

> **Superior Tech Support:** 24/7/365 Network Operations Center with highly-skilled U.S citizens.

> **High Network Security:** Network designed to meet MAC Standard Level II, FISMA guidelines, and DOD IA compliance.

> **Scalable Service Plan:** Subscription plans offer lower annual usage with occasional surge bandwidth.

SkyMAX Plans

SkyMAX Data

Data Plans are subscription-based services designed such that a single user can be afforded high speed downloads up to 16 Mbps and upload speeds up to 8 Mbps with the convenience of paying for only what you use. Top speeds are determined by the capabilities of the terminal's antenna size and transmit power. Service are "Always On" accessible 24/7/365, so they are excellent to meet the needs of emergency response and incident site communication needs. When usage exceeds the monthly data allocation, users simply pay for the overage. Alternatively, overage data may be prepaid at reduced rates and decremented monthly as overages occur. Higher volume users will be assigned priority with an assigned committed information rate (CIR) in 64 kbps increments. For users supporting voice and video applications bandwidth commitments are necessary to ensure smooth, uninterrupted operation. Typical VoIP phone users will benefit from at least 32 kbps of CIR per concurrent voice line. Video conference applications typically require a minimum of 256 kbps of CIR or higher of bandwidth commitment dependent upon video resolution.

SkyMAX Enterprise

For large enterprises or government agencies with a fleet of users, an Enterprise Plan may be better suited than a Data Plan. Enterprise plans utilize dedicated satellite bandwidth, which can be configured to accommodate any architecture such as broadcast, point-to-point, or point-to-multipoint network. Service plans are developed for the desired coverage region, transmission speeds, and remote terminal types. Services can be configured with annual capacity level then augmented with increased capacity for "surge" requirements on a monthly or weekly term. Each fully managed network engineering service includes network management services such as custom IP subnetting, VLAN, traffic prioritization, application support, and network security.

Emergency Management Plans

Emergency Managers are posed with the dilemma of operational readiness for disaster support, within restricted budgets. An Enterprise Plan can be configured as an annual contract to support routine maintenance and training, then capacity can be added to support response activities on a monthly or weekly term. Thus resolving the long lead times and costs associated with network activation, equipment configuration, and contracts management.

Restoration Plans

IT Managers are posed with the dilemma of providing continuous, uninterrupted operations at their facilities, even during a crisis when primary terrestrial communications are disrupted. Restoration Plans provide critical sites with an always on satellite backup with just enough access to keep the circuit in a state of readiness. If the primary circuit is disrupted, the backup will be activated for an hour, a day, or a week at a time. Plans can be established as either a Data Plan where customers are only billed usage or as an Enterprise Plan with unlimited access charged at an hourly or daily rate.
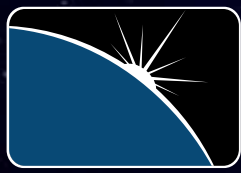
Maritime Plans

SkyMAX 2.0, now has the ability to support smaller aperture antennas, can provide internet access to small vessels for less than a penny a Mbyte in contrast to traditional maritime satellite services which cost $5 dollars per Mbyte or more.

Coverage Map

FLAT PANEL
CARRY-ON

PHASED ARRAY
VEHICLE MOUNT

PHASED ARRAY
MARITIME

DEPLOYABLE
CHECKED BAG

PARABOLIC
VEHICLE MOUNT

PARABOLIC
MARITIME

Knight Sky and Emergency Response

Knight Sky is a leading provider of broadband satellite communication services to the Incident Response and Disaster Recovery community, whose communications requirements are unpredictable in time, location, and scope. Knight Sky's decade-long track record of success in this market segment stems from the following:

- A business model focused on providing mission critical communications anywhere at any time in the 50 U.S. states and its territories.
- Access to substantial organic resources that enable us to surge our services to cope with large-scale national disasters.
- Delivering emergency communications services to several Federal Government agencies and a broad variety of state-level Emergency Management Agencies, National Guard units, and a number of local EMA and Public Safety organizations.

Overview of Knight Sky's contract with USDA-FS for Incident Response Satellite Services

In August 2015, the U.S. Department of Agriculture Forest Service (USDA-FS) awarded Knight Sky a Governmentwide Acquisition Contract (GWAC) for Incident Response Satellite Services.

Through these contracts Knight Sky can deliver a comprehensive turnkey solution to any incident site, including

- Installation and provisioning of the necessary satellite and wireless equipment, and services
- Internet, phone, and data services at various usage levels and performance
- Choice of various on-site communications options needed to support specific mission needs
- The complete solution set can be leased.

Any government agency can access this GWAC in support of its incident site communications.

Knight Sky's Turnkey Solution

Knight Sky supports incident site mission requirements of any size, from small groups of 5 to 10 users to large groups of 100 or more users. Each of the fourteen listed Contract Line Item Numbers **(see CLINs in Table 1: Satellite Airtime Schedule of Items)** can be leased on a daily, weekly, or monthly basis. Knight Sky can help you determine the most cost-effective service option based on your specific mission requirements. Knight Sky's turnkey solution includes all equipment, personnel, data transmission, airtime, and any other costs associated with providing Internet service and voice on-site for an emergency response incident.

Each CLIN also includes the services of an on-site Knight Sky technician. More importantly, mission planners can choose from a number of on-site support options in **Table 2: Optional Items.**

Emergency Responders and Mission Planners are requested to contact Knight Sky for specific pricing information based on your service level, equipment requirements, and response needs. Additionally, Knight Sky offers discounts on firm fixed price task orders on week-long or month-long deployments.

Communications Needs

Emergency Communications

When disaster strikes, local cellular networks and the public internet are either inoperable due to congestion or are completely destroyed. Communications are an essential component in managing a coordinated response. Knight Sky offers a variety of satellite communication solutions--from hand-held satellite phones to large-scale incident site backhaul services.

Restoration

It can take weeks to recover after a disaster, whether it's an isolated incident or a large-scale blackout. Communications are a vital part of managing the recovery process as well as resuming normal operations. Knight Sky offers high-speed satellite circuits to get your enterprise back on the network.

Data Collection

Data collection from locations where wired and cellular networks are out of reach can easily be accomplished with the appropriate satellite technology. Knight Sky offers turnkey solutions for the collection, transmission and consolidation of narrowband and broadband data.

Content Distribution

Distribution of audio, video and data files can be delivered cost effectively over a satellite to large populations independent of cable or fiber networks. Knight Sky offers satellite broadcasting to ensure secure and manageable content distribution.

Contribution Video Uplinks

Live video is indispensable for breaking news, sporting events, and live entertainment, but it can also be critical in emergency management and security to provide situational awareness. Recent advances in satellite technology and digital video compression have made it easier and more affordable than ever to deliver live video. Knight Sky offers flexible satellite services for high definition video satellite feeds that meet your needs and fit within your budget.

Airborne & UAV

The increased use of unmanned aerial vehicles (UAV) has created a huge demand on satellite bandwidth for the transmission of high definition video surveillance. Knight Sky offers large blocks of satellite bandwidth, which are monitored from our facility by cleared US citizens, in support of mission-critical operations.

Maritime

From ship to shore communications to high definition video uplinking, satellite communications has become an essential part of day-to-day maritime operations, oceanic research and exploration. Knight Sky offers satellite phones, satellite links, and motion-stabilized satellite equipment.

KNIGHT SKY

Knight Sky LLC, which was founded in 2003, is a leading provider of end-to-end managed satellite network services. Knight Sky is dedicated to supporting the United States government and its citizens during times of crisis and critical need with secure, reliable, and scalable emergency satellite and wireless communications services.

Knight Sky is headquartered in Frederick, Maryland, from where it operates a global satellite network with a 24/7/365 Network Operations Center and Help Desk.

Knight Sky Solutions

For over a decade, Knight Sky has successfully met the challenge of broadband access anywhere, anytime demanded by its customers. Knight Sky's primary charter has been to build, operate, and maintain a national satellite and wireless network infrastructure for contingency communications, when terrestrial communications are no longer viable as a result of man-made or natural disasters. This strategy has helped alleviate individual government agencies' needs for in-house expertise while lowering their operating expenses.
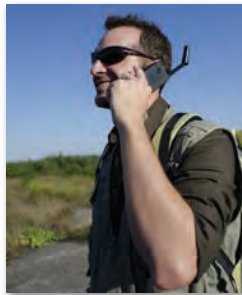
Managed Network Services (MNS)

Knight Sky designs and operates private satellite networks to meet our customers' unique requirements utilizing the most advanced technologies available. Knight Sky's satellite networks operate through several geographically diverse teleports accessing multiple satellites, enabling us to provide service anywhere in the world. Knight Sky hosts a subscription-based service with a variety of service plans well suited for contingency communications, restoration, and event coverage.

Transponded Bandwidth

At Knight Sky we are industry veterans who can navigate you through the source selection process, procurement and management of satellite bandwidth. Our engineering staff will perform necessary research and engineering analysis to select the optimal satellite for your application. Our network operations center (NOC) is staffed with cleared US citizens, who will commission your satellite carriers and monitor your transponder bandwidth for spectral purity and regulatory compliance. Knight Sky is an authorized reseller of all of the major satellite operators such as Intelsat, SES, Hispasat, Telesat, and Eutelsat.

Mobile Subscription Services

Knight Sky offers an array of satellite phones, internet hotspots and tracking devices, which operate in remote locations far from the reach of cellular networks. Knight Sky's technical sales team can advise you on which mobile communications device and airtime plan best fits your needs. Knight Sky is a reseller for global and regional mobile satellite service providers such as Iridium, Globalstar, Thuraya, Viasat, and Inmarsat.

SATCOM Equipment

From fixed satellite earth stations to light weight portable terminals, Knight Sky can supply commercial off the shelf products or custom engineered equipment. Our engineering design team has the experience and expertise to analyze your needs and recommend a solution from the best of breed technology available. Knight Sky is a value added reseller of all the leading satellite equipment manufacturers such as AvL, C-Com, Cobham, AQYR, iDirect, Newtec, XipLink and others. We have recently introduced our own line of satellite terminals. SkyPoint terminals are configurable equipment sets in various formats such as manpack, transportable and vehicle-mount kits.

Training

Knight Sky's knowledgeable sales engineers are always available to provide an assessment of the latest satellite technologies. For a deeper understanding of satellite communications, Knight Sky is an authorized provider of the GVF Satcom Professional Certification Program, with Basic, Advanced and Specialist levels that includes GVF catalog courses online, customized courses and hands-on (classroom) training.

Knight Sky's Government Contracting Vehicles Summary

Knight Sky's satellite and wireless products and services are easily obtainable through a number of Federal, State and Local IDIQ Contract vehicles, including:

GSA Federal Supply Schedule 70

General Purpose Commercial Information Technology Equipment, Software and Services

General Service Administration IT Schedule 70 is the largest, most widely used acquisition vehicle in the federal government. Schedule 70 is an indefinite delivery/indefinite quantity (IDIQ) multiple award schedule, providing direct access to products, services and solutions. For more information on how to buy Knight Sky products and service through GSA Schedule 70 see the GSA Web site for details at:

http://www.gsa.gov/portal/category/100515

Knight Sky Contract Number: GS-35F-0016V

- Special Item Number 132-8   Equipment
- Special Item Number 132-12   Maintenance and Repair
- Special Item Number 132-51   Professional Services
- Special Item Number 132-52   Electronic Commerce and Subscription Services
- Special Item Number 132-54   Transponded Bandwidth
- Special Item Number 132-55   Subscription Satellite Services

Contracting Officer: Jill Erickson Email: jill.erickson@gsa.goav Phone: (817) 978-3039
Our complete contract can be downloaded at:

https://www.gsaadvantage.gov/ref_text/GS35F0016V/GS35F0016V_online.htm

Complex Commercial SATCOM Solutions – Small Business (CS3-SB)

Complex Commercial SATCOM Solutions (CS3) replaces the CS2 and CS2-Small Business legacy vehicles while meeting the continued requirements and goals of government entities. CS3 is a principle component of the Future Commercial SATCOM Services Acquisition (FCSA) Program, a strategic partnership with the Defense Information Systems Agency (DISA) creating a streamlined, easy-to-use solution for all Government commercial satellite communications needs.

In the lineage of the FCSA Program, CS3 is a unique acquisition solution that aligns with COMSATCOM service areas and allows customers direct source access to the best value solutions, while providing a full range of services. Complex Solutions address non-standard, customized engineered offerings by a single provider to meet customers' unique satellite communications needs. These solutions may include any combination of fixed satellite services or mobile satellite services components, along with service enabling components such as terminals, teleport, and terrestrial interface tail circuits.

Find out more about Knight Sky CS3 Contract Number GS00Q17NRD4010 at:

https://www.knight-sky.com/cs3

Knight Sky LLC Contract # GS00Q12NSD4002
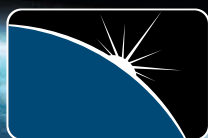Contracting Officer: Tracey Embry Email: tracey.embry@gsa.gov Phone: (703) 306-7041
Find the complete ordering guide for Custom SATCOM Solution at:

http://www.gsa.gov/portal/content/122231

GSA On-Line Shopping E-Buy and GSA Advantage

GSA's latest e-Business innovation, eBuy, is an electronic Request for Quote (RFQ) / Request for Proposal (RFP) system designed to allow government buyers to request information, find sources, and prepare RFQs/RFPs, online, for millions of services and products offered through GSA's Multiple Award Schedule (MAS) and GSA Technology Contracts. Government buyers can use eBuy to obtain quotes or proposals for services, large quantity purchases, big ticket items, and purchases with complex requirements.

https://www.ebuy.gsa.gov

KNIGHT SKY

GSA Contract Holder

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Satellite Service Package Recurring Daily Charges

CLIN	Incident Type	Service Type Provider Type	Committed Data Rate (See Note 7) Downlink (Kbps)	Uplink (Kbps)	Service, Equipment and Support (see Notes 1 and 2) Charge/Day
A	Type 3	SkyMAX-Entry	2048	512	$2,408.00
B	Type 1/2	SkyMAX-Standard	4096	1024	$3,580.00
C	Type 1/2	SkyMAX-Pro	8192	2048	$6,133.00
D	Type 1	SkyMAX-Pro Plus	12288	4096	$9,480.00
E	Type 1	SkyMAX-Enterprise	15360	5120	$11,021.00

Additional One-Time Charges Applicable to all Deployments
(See Note 3)

Description	One-Time Charge
Equipment Delivery/Setup/Teardown/Removal - includes up to 600 Miles RT Travel	$1,200.00
Additional Mileage beyond 600 Miles RT per deployment, Charge/Mile	$2.00

Optional Items - Recurring Daily Charges

	Description	Downlink Data Rate Increase	Uplink Data Rate Increase	Custom Airtime Charge/Day (see Note 4)
O-d	SkyMAX-Custom-Downlink, increments of 1024 kbps added to one of the CLIN A-E above	1024 kbps		$350 per 1024 kbps of service increment
O-u	SkyMAX-Custom-Uplink, increments of 1024 kbps added to one of the CLIN A-E above		1024 kbps	$700 per 1024 kbps of service increment

NOTES

1	Airtime Services Includes: Satellite bandwidth to support purchased throughput rates, teleport services, Internet access, unlimited toll-free domestic US VoIP calling, 24x7 off-site network engineering support, standard daily usage reports
2	Equipment & Support Package includes: On-site Field Technician, VSAT Terminal, Satellite Modem, Network Core Router, 24-port Ethernet Switches, Management Laptop, UPS, Cat-5 Ethernet Cable Installed, WiFi Access Points, up to 24 VoIP Deskphones, and generator.
3	One-time charges are applied to each deployment, regardless of service level or optional services. These cover the transportation and one-time setup costs associated with the deployment.
4	Custom Airtime Rates provide additional bandwidth increments that can be applied to one of the standard Airtime rates. This enables provisioning of custom transmission rates (e.g. 6 mbps downlink + 3 Mbps uplink). Customers will order one of the standard service packages (CLINs A - E), and then order the bandwidth increment for uplink and/or downlink as desired. The incremental fee will be added to the base service fee.

5	VSAT Terminal must be provided clear line-of-site to the satellite with reasonable distance to the end-user sites.
6	Support for analog fax lines is on a best effort basis only, and some fax machines may not be supported. Performance of fax over satellite is not guaranteed.
7	Please note that throughput for VPN traffic, or data transmitted from within applications that encrypt data, will be limited due to the fact that encrypted traffic will not benefit from the TCP Acceleration feature provided by Knight Sky's modems. See attached Technical Note for full explanation.

	Package Configurations						
CLIN>	A	B	C	D	E		Description/Comments
Service Level>	Entry	Basic	Pro	Pro Plus	Enterprise		
Trailer (Hi Power VSAT)	0	0	1	1	1		Higher power terminal to enable higher data rates. May be trailer mounted or non-pen mount configured. Includes VSAT, satellite modem, core router and switch, and additional switches for on-site offices.
Deployable (Reg Power VSAT)	1	1	0	0	0		Lower power terminal to be more affordable. May be transit case system or non-pen non-pen mount configured. Includes VSAT, satellite modem, core router and switch, and additional switches for on-site offices.
Generator	1	1	1	1	1		Sufficient power for largest VSAT package
WIFI	1	1	2	2	3		Outdoor long-range WiFi Access points. Can be mounted on extendable mast to increase coverage. Includes WiFi admin/management services and daily usage monitoring.
VoIP Phones and Service	6	12	18	24	24		Cisco VoIP phones with toll-free nationwide calling services. Includes admin/management and daily usage monitoring.
Field Technician	1	1	1	2	2		On-site field technician(s) to provide support for VSAT and networking equipment.

Equipment	Unit Price	Equipment Package Prices					
Trailer	$695.00	$0.00	$0.00	$695.00	$695.00	$695.00	
Deployable	$495.00	$495.00	$495.00	$0.00	$0.00	$0.00	
Generator	$100.00	$100.00	$100.00	$100.00	$100.00	$100.00	Unit prices per current USFS contract. Package prices based on quantities above at unit prices.
WIFI	$90.00	$90.00	$90.00	$180.00	$180.00	$270.00	
VoIP	$30.00	$180.00	$360.00	$540.00	$720.00	$720.00	
Tech	$650.00	$650.00	$650.00	$650.00	$1,300.00	$1,300.00	
Totals		$1,515.00	$1,695.00	$2,165.00	$2,995.00	$3,085.00	Equipment package prices
Airtime		$893.00	$1,885.00	$3,968.00	$6,485.00	$7,936.00	Airtime prices per current USFS contract.
Total Price		$2,408.00	$3,580.00	$6,133.00	$9,480.00	$11,021.00	Total of Equipment + Airtime. See Price List.